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EXAMINER

BOTTS, MICHAEL K

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/767,455

Applicant(s)

SATHER, DALE A.

Examiner

Michael K. Botts

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-50 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 28-50 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 24, 2006 has been entered.
2. This is a Non-Final Office Action.
3. Claims 28-50 have been examined, with claims 28, 36, and 44 being the independent claims.
4. Claims 28-50 are objected to.
5. Claims 28-50 are rejected.

The Specification

6. Applicant is reminded of the requirement to update the status (pending, allowed, etc.) of all parent priority applications in the first line of the specification, when appropriate, and the status of all citations of U.S. filed applications in the specification should also be updated, when appropriate.

Claims Objections

7. Regarding claims 28-50, the following claim terms and phrases are objected to as requiring interpretation by the Examiner from the context of the application.

Appropriate correction is required to state the Applicant's intended definition of these terms and phrases. Applicant is cautioned against the introduction of new matter into the claims.

a) The phrase "non-hierarchical relationships" is not found in the specification. Given its broadest reasonable interpretation, the Examiner believes Applicant intended the phrase to mean relationship that is not hierarchical, or is not displayed in a hierarchical representation.

b) The term "mechanism" is not expressly defined in the specification. Citation is made in the disclosure to figure 6, but figure 6 is merely a two step flow chart that displays no "mechanism." See, figure 6, and disclosure, paragraphs [0013] and [0042]. The Examiner is not aware of any specialized definition of the term that is consistent with the context of the claims and that would have been known by one of ordinary skill in the art at the time of the invention. The commonly understood definition of "mechanism" consistent with the context of the claims, is as follows: "the process, physical or mental, by which something is done or comes into being." See, "The American Heritage College Dictionary," fourth edition, Houghton Mifflin Co., 2002, definition of "mechanism."

Under the commonly understood definition, as applied to the claim limitation, the term "mechanism" includes any method or process for creating a "non-hierarchical" representation from a "hierarchical" representation. Accordingly, the limitations in the

claims are drawn to "a link," which is read as being any appropriate link within the data structure.

c) The term "link," or phrase "added links," is not found in the specification. In addition, the term "link," or phrase "added links," is not found in the original claims set, now cancelled. Upon review of the drawings, the Examiner believes Applicant intended the term "link," or phrase "added links," to mean the arrows that appear in the drawings between the elements in what are believed to be an embodiment of the "non-hierarchical" representation. E.g., see figure 3, element 50, the unidentified arrows connecting the circled words "(people)," "(John)," and "(Mary)," which appear to be identified by the words "person," "person," and "loves." The arrows show the flow of the elements from the "hierarchical" representation. It is further noted that only a "link" is claimed within the context of linking corresponding non-hierarchical elements. There is no specification or disclosure that such link be limited to an arrow.

Claims Rejections – 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 28-50** are rejected under 35 U.S.C. 102(e) as being anticipated by Stapel et al. (U.S. Patent 6,912,538 B2, Provisional Application filed October 20, 2000) [hereinafter "Stapel"].

Regarding independent claim 28, as amended:

Stapel discloses a hierarchical model current representation in col. 2, line 6 through col. 3, line 2. Stapel specifically discusses the hierarchical limitation of the prior art document representation in col. 2, lines 6-22 and col. 2, lines 47-57. Stapel points out that the hierarchical structure is insufficient to achieve complex representations. Therefore, Stapel discloses a new document representation in col. 3, line 5 through col. 4, line 58, which it calls a matrix representation, which defines elements and their association such that both standard hierarchical and complex non-hierarchical relationships can be defined between elements using the same mechanism.

Stapel discloses identifying elements of the current representation that are to be items in the new representation in figure 2, figure 3, col. 3, lines 41-58, and col. 8, line 5 through col. 10, line 51. Stapel discloses for each identified element, creating for the new representation an item corresponding to the identified element in figure 2, figure 3, col. 8, line 5 through col. 10, line 51. Stapel discloses for each created item, adding to the item that is a subject of a hierarchical relationship as indicated by the current representation a link to each item corresponding to an identified element that is an object of the hierarchical relationship as indicated by the current representation in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5 through col.

10, line 51. Stapel discloses for non-hierarchical relationships between elements and content of elements as indicated by the current representation, adding to an item corresponding to the element that is the subject of the non-hierarchical relationship a link to the item corresponding to the content of the element that is the object of the non-hierarchical relationship in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5 through col. 10, line 51. Stapel discloses wherein the created items and added links form the new representation of the document in col. 3, line 5 through col. 4, line 58.

Further, it is noted that the phrase "non-hierarchical relationships" is not disclosed in the specification. Given its broadest reasonable interpretation, the Examiner believes Applicant intended the phrase to mean relationship that is not hierarchical, or is not displayed in a hierarchical representation.

It is further noted that the term "mechanism" is not expressly defined in the specification. Citation is made in the disclosure to figure 6, but figure 6 is merely a two step flow chart that displays no "mechanism." See, figure 6, and disclosure, paragraphs [0013] and [0042]. The Examiner is not aware of any specialized definition of the term that is consistent with the context of the claims and that would have been known by one of ordinary skill in the art at the time of the invention. The commonly understood definition of "mechanism" consistent with the context of the claims, is as follows: "the process, physical or mental, by which something is done or comes into being." See, "The American Heritage College Dictionary," fourth edition, Houghton Mifflin Co., 2002, definition of "mechanism."

Under the commonly understood definition, as applied to the claim limitation, the term "mechanism" includes any method or process for creating a "non-hierarchical" representation from a "hierarchical" representation. Accordingly, the limitations in the claims are drawn to "a link," which is read as being any appropriate link within the data structure. Stapel teaches a link. See, Stapel, figures 8 and 11, and col. 14, line 40-67.

It is noted that the term "link," or phrase "added links," is not found in the specification. In addition, the term "link," or phrase "added links," is not found in the original claims set, now cancelled. Upon review of the drawings, the Examiner believes Applicant intended the term "link," or phrase "added links," to mean the arrows that appear in the drawings between the elements in what are believed to be an embodiment of the "non-hierarchical" representation. E.g., see figure 3, element 50, the unidentified arrows connecting the circled words "(people)," "(John)," and "(Mary)," which appear to be identified by the words "person," "person," and "loves." The arrows show the flow of the elements from the "hierarchical" representation. It is further noted that only a "link" is claimed within the context of linking corresponding non-hierarchical elements. There is no specification or disclosure that such link be limited to an arrow.

See, Stapel, figure 1, element 150, teaching the "link" between elements in a non-hierarchical relationship shown as ordered elements in the matrix traversal, such as "A.C.F.X," with the relationship link shown by the period (".").

Regarding dependent claim 29:

Stapel discloses wherein the hierarchical relationships are explicit and the non-hierarchical relationships are implicit in col. 2, line 6 through col. 4, line 15.

Regarding dependent claim 30:

Stapel discloses wherein the hierarchical model is XML based in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 31:

Stapel discloses wherein the hierarchical relationships are indicated by parent and child relationships of XML elements in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 32:

Stapel discloses wherein the non-hierarchical relationship is an attribute of an XML element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 33:

Stapel discloses wherein a non-hierarchical relationship is a property of an XML element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 34:

Stapel discloses wherein a non-hierarchical relationship is content of an XML element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 35:

Stapel discloses where the new representation is based on an item, relationship, and attributed model in figure 3, col. 3, line 5 through col. 4, line 58, and col. 10, line 3-51. The elements are stored in table 210, the relationships are stored in table 230, and the attributes are stored in table 250, all shown in figure 3.

Regarding independent claim 36, as amended:

Stapel discloses a hierarchical model current representation in col. 2, line 6 through col. 3, line 2. Stapel specifically discusses the hierarchical limitation of the prior art document representation in col. 2, lines 6-22 and col. 2, lines 47-57. Stapel points out that the hierarchical structure is insufficient to achieve complex representations. Therefore, Stapel discloses a new document representation in col. 3, line 5 through col. 4, line 58, which it calls a matrix representation, which defines elements and their association such that both standard hierarchical and complex non-hierarchical relationships can be defined between elements using the same mechanism.

Stapel discloses identifying elements of the current representation that are to be items in the new representation in figure 2, figure 3, col. 3, lines 41-58, and col. 8, line 5 through col. 10, line 51. Stapel discloses for hierarchical relationships between

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elements of the current representation, adding to an item corresponding to the element that is a subject of the hierarchical relationship a link to the item corresponding to the element that is an object of the hierarchical relationship in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5 through col. 10, line 51. Stapel discloses for non-hierarchical relationships between elements and content of elements as indicated by the current representation, adding to an item corresponding to the element that is the subject of the non-hierarchical relationship a link to the item corresponding to the content of the element that is the object of the non-hierarchical relationship in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5 through col. 10, line 51. Stapel discloses adding to items attributes of corresponding elements of the current representation that do not indicate a relationship between elements in figure 3 and col. 10, lines 2-51. The attribute table stores item attributes for each of the elements that do not indicate relationships.

Further, it is noted that the phrase "non-hierarchical relationships" is not disclosed in the specification. Given its broadest reasonable interpretation, the Examiner believes Applicant intended the phrase to mean relationship that is not hierarchical, or is not displayed in a hierarchical representation.

It is further noted that the term "mechanism" is not expressly defined in the specification. Citation is made in the disclosure to figure 6, but figure 6 is merely a two step flow chart that displays no "mechanism." See, figure 6, and disclosure, paragraphs [0013] and [0042]. The Examiner is not aware of any specialized definition of the term that is consistent with the context of the claims and that would have been known by one

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of ordinary skill in the art at the time of the invention. The commonly understood definition of "mechanism" consistent with the context of the claims, is as follows: "the process, physical or mental, by which something is done or comes into being." See, "The American Heritage College Dictionary," fourth edition, Houghton Mifflin Co., 2002, definition of "mechanism."

Under the commonly understood definition, as applied to the claim limitation, the term "mechanism" includes any method or process for creating a "non-hierarchical" representation from a "hierarchical" representation. Accordingly, the limitations in the claims are drawn to "a link," which is read as being any appropriate link within the data structure. Stapel teaches a link. See, Stapel, figures 8 and 11, and col. 14, line 40-67.

It is noted that the term "link," or phrase "added links," is not found in the specification. In addition, the term "link," or phrase "added links," is not found in the original claims set, now cancelled. Upon review of the drawings, the Examiner believes Applicant intended the term "link," or phrase "added links," to mean the arrows that appear in the drawings between the elements in what are believed to be an embodiment of the "non-hierarchical" representation. E.g., see figure 3, element 50, the unidentified arrows connecting the circled words "(people)," "(John)," and "(Mary)," which appear to be identified by the words "person," "person," and "loves." The arrows show the flow of the elements from the "hierarchical" representation. It is further noted that only a "link" is claimed within the context of linking corresponding non-hierarchical elements. There is no specification or disclosure that such link be limited to an arrow.

See, Stapel, figure 1, element 150, teaching the "link" between elements in a non-hierarchical relationship shown as ordered elements in the matrix traversal, such as "A.C.F.X," with the relationship link shown by the period (".").

Regarding dependent claim 37:

Stapel discloses wherein the hierarchical relationships are explicit and the non-hierarchical relationships are implicit in col. 2, line 6 through col. 4, line 15. Stapel discloses wherein the non-hierarchical relationships are explicit in the new representation of the document in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5 through col. 10, line 51.

Regarding dependent claim 38:

Stapel discloses wherein the hierarchical model is XML based in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 39:

Stapel discloses wherein the hierarchical relationships are indicated by parent and child relationships of XML elements in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 40:

Stapel discloses wherein the non-hierarchical relationship is an attribute of an XML element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 41:

Stapel discloses wherein a non-hierarchical relationship is a property of an XML element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 42:

Stapel discloses wherein a non-hierarchical relationship is content of an XML element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 43:

Stapel discloses where the new representation is based on an item, relationship, and attributed model in figure 3, col. 3, line 5 through col. 4, line 58, and col. 10, lines 3-51. The elements are stored in table 210, the relationships are stored in table 230, and the attributes are stored in table 250, all shown in figure 3.

Regarding independent claim 44, as amended:

Stapel discloses a hierarchical model current representation in col. 2, line 6 through col. 3, line 2. Stapel specifically discusses the hierarchical limitation of the prior art document representation in col. 2, lines 6-22 and col. 2, lines 47-57. Stapel points out that the hierarchical structure is insufficient to achieve complex representations. Therefore, Stapel discloses a new document representation in col. 3, line 5 through col. 4, line 58, which it calls a matrix representation, which defines elements and their

association such that both standard hierarchical and complex non-hierarchical relationships can be defined between elements using the same mechanism.

Stapel discloses identifying elements of the current representation that are to be items in the new representation in figure 2, figure 3, col. 3, lines 41-58, and col. 8, line 5 through col. 10, line 51. Stapel discloses for hierarchical relationships between elements of the current representation, adding to an item corresponding to the element that is a subject of the hierarchical relationship a link to the item corresponding to the element that is an object of the hierarchical relationship in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5 through col. 10, line 51. Stapel discloses for non-hierarchical relationships between elements and content of elements of the current representation, adding to an item corresponding to the element that is the subject of the non-hierarchical relationship a link to the item corresponding to the content of the element that is the object of the non-hierarchical relationship in figure 1, figure 2, figure 3, col. 3, line 28 through col. 4, line 15, and col. 8, line 5 through col. 10, line 51.

Further, it is noted that the phrase "non-hierarchical relationships" is not disclosed in the specification. Given its broadest reasonable interpretation, the Examiner believes Applicant intended the phrase to mean relationship that is not hierarchical, or is not displayed in a hierarchical representation.

It is further noted that the term "mechanism" is not expressly defined in the specification. Citation is made in the disclosure to figure 6, but figure 6 is merely a two step flow chart that displays no "mechanism." See, figure 6, and disclosure, paragraphs

[0013] and [0042]. The Examiner is not aware of any specialized definition of the term that is consistent with the context of the claims and that would have been known by one of ordinary skill in the art at the time of the invention. The commonly understood definition of "mechanism" consistent with the context of the claims, is as follows: "the process, physical or mental, by which something is done or comes into being." See, "The American Heritage College Dictionary," fourth edition, Houghton Mifflin Co., 2002, definition of "mechanism."

Under the commonly understood definition, as applied to the claim limitation, the term "mechanism" includes any method or process for creating a "non-hierarchical" representation from a "hierarchical" representation. Accordingly, the limitations in the claims are drawn to "a link," which is read as being any appropriate link within the data structure. Stapel teaches a link. See, Stapel, figures 8 and 11; and col. 14, line 40-67.

It is noted that the term "link," or phrase "added links," is not found in the specification. In addition, the term "link," or phrase "added links," is not found in the original claims set, now cancelled. Upon review of the drawings, the Examiner believes Applicant intended the term "link," or phrase "added links," to mean the arrows that appear in the drawings between the elements in what are believed to be an embodiment of the "non-hierarchical" representation. E.g., see figure 3, element 50, the unidentified arrows connecting the circled words "(people)," "(John)," and "(Mary)," which appear to be identified by the words "person," "person," and "loves." The arrows show the flow of the elements from the "hierarchical" representation. It is further noted

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that only a "link" is claimed within the context of linking corresponding non-hierarchical elements. There is no specification or disclosure that such link be limited to an arrow.

See, Stapel, figure 1, element 150, teaching the "link" between elements in a non-hierarchical relationship shown as ordered elements in the matrix traversal, such as "A.C.F.X," with the relationship link shown by the period (".").

Regarding dependent claim 45:

Stapel discloses wherein the hierarchical relationships are explicit and the non-hierarchical relationships are implicit in col. 2, line 6 through col. 4, line 15.

Regarding dependent claim 46:

Stapel discloses wherein the hierarchical relationships are indicated by parent and child relationships of XML elements in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 47:

Stapel discloses wherein the non-hierarchical relationship is an attribute of an XML element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 48:

Stapel discloses wherein a non-hierarchical relationship is a property of an XML element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 49:

Stapel discloses wherein a non-hierarchical relationship is content of an XML element that refers to another XML element in col. 2, line 6 through col. 3, line 2.

Regarding dependent claim 50:

Stapel discloses where the new representation is based on an item, relationship, and attributed model in figure 3, col. 3, line 5 through col. 4, line 58, and col. 10, line 3-51. The elements are stored in table 210, the relationships are stored in table 230, and the attributes are stored in table 250, all shown in figure 3.

8. It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

Response to Arguments

Applicants' arguments filed October 24, 2006 have been fully considered, but they are not persuasive.

Regarding rejections of claims 28-50:

FIRST: Applicant argues that the reference, Stapel, fails to teach or suggest

"wherein the created items and the added links form the new representation of the document, such that the new representation represents hierarchical and non-hierarchical relationships between items using the same mechanism." See, Remarks, pages 7-9.

The Examiner disagrees.

It is noted that the phrase "non-hierarchical relationships" is not found in the specification. Given its broadest reasonable interpretation, the Examiner believes Applicant intended the phrase to mean relationship that is not hierarchical, or is not displayed in a hierarchical representation.

It is further noted that the term "mechanism" is not expressly defined in the specification. Citation is made in the disclosure to figure 6, but figure 6 is merely a two step flow chart that displays no "mechanism." See, figure 6, and disclosure, paragraphs [0013] and [0042]. The Examiner is not aware of any specialized definition of the term that is consistent with the context of the claims and that would have been known by one of ordinary skill in the art at the time of the invention. The commonly understood definition of "mechanism" consistent with the context of the claims, is as follows: "the process, physical or mental, by which something is done or comes into being." See, "The American Heritage College Dictionary," fourth edition, Houghton Mifflin Co., 2002, definition of "mechanism."

Under the commonly understood definition, as applied to the claim limitation, the term "mechanism" includes any method or process for creating a "non-hierarchical" representation from a "hierarchical" representation. Accordingly, the limitations in the

claims are drawn to "a link," which is read as being any appropriate link within the data structure. Stapel teaches a link. See, Stapel, figures 8 and 11, and col. 14, line 40-67.

SECOND: Applicant argues that the link taught in Stapel fails to teach or suggest "the same mechanism, as link between items, is used to represent both hierarchical and non-hierarchical relationships." See, Remarks, page 21.

The Examiner disagrees.

It is noted that the term "link," or phrase "added links," is not found in the specification. In addition, the term "link," or phrase "added links," is not found in the original claims set, now cancelled. Upon review of the drawings, the Examiner believes Applicant intended the term "link," or phrase "added links," to mean the arrows that appear in the drawings between the elements in what are believed to be an embodiment of the "non-hierarchical" representation. E.g., see figure 3, element 50, the unidentified arrows connecting the circled words "(people)," "(John)," and "(Mary)," which appear to be identified by the words "person," "person," and "loves." The arrows show the flow of the elements from the "hierarchical" representation. It is further noted that only a "link" is claimed within the context of linking corresponding non-hierarchical elements. There is no specification or disclosure that such link be limited to an arrow.

See, Stapel, figure 1, element 150, teaching the "link" between elements in a non-hierarchical relationship shown as ordered elements in the matrix traversal, such as "A.C.F.X," with the relationship link shown by the period (".").

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael K. Botts whose telephone number is 571-272-5533. The examiner can normally be reached on Monday through Friday 8:00-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MKB/mkb


Heather R. Herndon
Supervisory Patent Examiner
Technology Center 2100